

July 29, 2016

CD16-0156

Mr. John R. Baza, Director
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Post Office Box 145801
Salt Lake City, Utah 84114-5801

Subject: Tooele County Conditional Use Permit 2700-87; Permit Renewal
(Embankment Construction Materials)

Mr. Baza:

EnergySolutions herein submits justification to exempt construction materials used at the EnergySolutions Clive radioactive and mixed waste disposal operations from a mining permit with the Utah Division of Oil, Gas, and Mining (Division). This justification further demonstrates that reclamation plans and surety funds already secured with Tooele County, Utah satisfy the objectives of the Utah Mined Land Reclamation Act (Utah Code Annotated § 40-8-4). Finally, EnergySolutions recommends the Division execute a Cooperative Agreement with Tooele County to provide the Division with annual access to updated material use and reclamation activities at EnergySolutions' Clive Facility (pursuant to Utah Administrative Code R647-1-102.2).

Prior to EnergySolutions' Clive disposal activities, the U.S. Department of Energy (DOE) designated the Clive area in April 1983 as the disposal destination for tailings being removed from the legacy Vitro uranium mill processing site in Salt Lake City (in compliance with the Uranium Mill Tailings Radiation Control Act in 42 USC § 7901 et seq). Over 4 million tons of tailings from the legacy Vitro site were transferred to the Clive location from July 1985 through November 1987. By August 1996, DOE reports that reclamation of the Salt Lake City site was completed and the Vitro Embankment closed with materials excavated from the nearby Clive area, in accordance with the design specifications.¹

Even though conducted in close cooperation with the State of Utah and ongoing beyond the effective date promulgated in this requirement, a Division mining permit was not required for the material excavated in the Vitro Embankment construction. Following its closure, EnergySolutions (as Envirocare of Utah) purchased the land surrounding the closed Vitro Embankment and began commercial operation of its Clive low-level radioactive and mixed waste facilities (continuing DOE's practice of using materials from EnergySolutions' adjacent property to support disposal embankment construction).

¹ State of Utah. "Completion Report for the UMTRA Project Vitro Site – Salt Lake City, Utah (DOE/AL/62350-129, Rev 3)." Uranium Mill Tailings Remedial Action Project, United States Department of Energy, August 1996.

Utah Administrative Code R647-1-102.1.11 requires that,

“Effective November 1, 1988, the following rules apply to all previously exempted mining operations and to mining operations planning to commence, or resume operations within the state of Utah.”

In addition to lack of mining permit precedence, EnergySolutions maintains that the Clive construction materials (geologically classified as rock aggregate) are specifically **exempted from a permit requirement by statute and requirement.** Utah Administrative Code R647-1-106 specifically excludes sand, gravel and rock aggregate from mining permit requirements. Rock aggregate is defined in Utah Administrative Code R647-1-106 as,

“those consolidated rock materials associated with a sand deposit, a gravel deposit, or a sand and gravel deposit, that were created by alluvial sedimentary processes. The definition of rock aggregate specifically excludes any solid rock in the form of bedrock which is exposed at the surface of the earth or overlain by unconsolidated material.”

The Clive embankment construction materials used by DOE and EnergySolutions were produced during the Pleistocene and Holocene record of climate variations and lake formation in the Bonneville Basin via pluvial lake erosion and sedimentation.² While hydrometer analyses demonstrate that the material particle size distribution is predominantly smaller in size than 1/16 mm, x-ray diffraction reveals the Clive materials are small-particulate erosional byproducts of pulverized rock aggregate and distinctly different than hydrous aluminum phyllosilicates (less than 5% clays).

Mineral	Wt. %
Aragonite	53
Smectite	15
Quartz	12
Calcite	8
Dolomite	4
K-Feldspar	3
Plagioclase	2
Kaolinite	2
Illite/Mica	1

As is reflected in the Tooele County Condition Use Permit's Reclamation Plan and Performance Bond, EnergySolutions continues to closely cooperate with Tooele County to ensure its material uses activities, reclamation plans and surety monies are adequate to

² Neptune and Company. “Deep Time Assessment for the Clive DU PA Model v1.4 (NAC-0032_R4).” Neptune and Company Report, Los Alamos, New Mexico, November 22, 2015, pg 17.

accomplish the same objectives as those promulgated with the Utah Mined Land Reclamation Act.

“(1) to return the land, concurrently with mining or within a reasonable amount of time thereafter, to a stable ecological condition compatible with past, present, and probable future local land uses; (2) to minimize or prevent present and future on-site or off-site environmental degradation caused by mining operations to the ecologic and hydrologic regimes and to meet other pertinent state and federal regulations regarding air and water quality standards and health and safety criteria; and (3) to minimize or prevent future hazards to public safety and welfare.” (Utah Annotated Code § 40-8-12)

Utah Administrative code R647-1-102.2 requires the Division to,

“cooperate with other state agencies, local governmental bodies, agencies of the federal government, and private interests in the furtherance of the purposes of the Utah Mined Land Reclamation Act.”

Since Tooele County has actively regulated EnergySolutions' material use activities from its founding, any further Division regulation would be *“duplicative, overlapping, excessive, or conflicting”* (as defined in Utah Administrative Code R647-1-102.2).

On January 23, 2012, EnergySolutions last revised and renewed Condition Use Permit 2700-87 with Tooele County, Utah (CUP Permit). With a five-year term, the CUP Permit has provided the required environmental protection while authorizing EnergySolutions' to use material from its Clive low-level radioactive and mixed waste disposal facility property for disposal embankment liner, fill and cover construction needs. In parallel with ongoing Radioactive Material License (RML) renewal efforts, EnergySolutions is under negotiations with Tooele County to renew its CUP Permit (set to expire in 2017). In review of EnergySolutions' RML Renewal Application, the Utah Division of Waste Management and Radiation Control sought consultation from the Utah Division of Oil, Gas and Mining regarding eventual reclamation plans associated with the CUP Permit. EnergySolutions' as appreciated the Division staff's guidance with its CUP Permit renewal process.

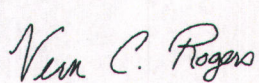
The Division is authorized to *“enter into cooperative agreements with other agencies in furtherance of the purposes of the Act.”*³ Since Tooele County is already ensuring the purposes of the Utah Mined Land Reclamation Act are satisfied, EnergySolutions recommends the Division execute a cooperative agreement with Tooele County for its continued Clive material use oversight. Such an agreement would recognize Tooele County's legacy of oversight history, while providing the Division with an annual

³ Utah Administrative Code R647-1-102.2 (available via <http://www.rules.utah.gov/publicat/code/r647/r647.htm>), accessed July 27, 2016.

awareness of EnergySolutions' updated material use and reclamation activities for Sections 5 and 29 at EnergySolutions' Clive Facility.

Please contact me at (801) 649-2000 if you have any questions regarding this submittal.

Sincerely,

 Vern C. Rogers
Jul 29 2016 8:42 AM



Vern C. Rogers
Manager, Compliance and Permitting

cc: **Leslie Heppler, DOGM**
Blaine Gehring, Tooele County Planner

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